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ABSTRACT

Although previous research on perception of work environment has focused on the underlying structure of the environment, perception of a specific event can indicate whether a three-dimensional model (prediction, understanding, and control) or a two-dimensional model (information and control) accounts for the individual's perception in terms of goal setting, goal consensus, goal clarity, performance clarity, ownership of goal setting and appraisal process, and impact on appraisal interview. These two models were examined in the context of the performance appraisal episode. A 15-item questionnaire representing the above six variables was administered to 206 exempt employees at a large electronic information processing organization. The results indicated that the three-dimensional model fit the data better than did the two-dimensional model. This suggestion, however, is tentative because of some limitations on this study. Not all aspects of the performance appraisal interview were included, error terms were assumed to be uncorrelated, and the goal-setting and appraisal program was newly instituted in the sample. Nonetheless, prediction, understanding, and control are three psychological dimensions that individuals use to make sense of events in their work environment. (TW)

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Perceptions of Appraisal Episodes:

A Test of Two Structural Models

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Perceptions of Appraisal Episodes:

A Test of Two Structural Models

Abstract

Two structural models of perceptions of the work environment were examined in the context of the performance appraisal episode. The first model was based on Sutton and Kahn's (1983) components of prediction, understanding, and control. The second model was based on Ryan's (1982) classification of environmental events into controlling and informational events. Data were obtained from a sample of employees of a private sector information processing organization (N=206). Results of confirmatory factor analyses supported Sutton and Kahn's three-dimensional model (X^2 = 7.15 with 6 degrees of freedom, p = 0.307) over Ryan's two-dimensional model (X^2 = 70.41 with 8 degrees of freedom, p = 0.000). The utility of the three dimensions for predicting employee acceptance of appraisal programs was discussed.

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Perceptions of Appraisal Episodes:

A Test of Two Structural Models

Cognitive evaluation theory (Deci, 1975; Deci & Ryan, 1980; Ryan, 1982) suggests that perceptions of environmental events can be characterized by two functional dimensions, controlling events and informational events. According to Ryan (1982), a controlling event is one which is interpreted by the recepient as pressure to attain a particular outcome. An environmental event, on the other hand, is perceived to be informational if it provides behaviorally relevant information in the absence of pressure for a particular outcome.

Sutton and Kahn (1983) have also suggested that control may be an important underlying dimension of perceptions of the work environment. However, they propose that people use two additional dimensions, prediction and understanding, as they try to make sense of their world.

Sutton and Kahn define prediction as the ability to forecast the frequency, timing, duration and quality of events in the environment. Understanding is defined as knowledge about causes of significant events in the workplace. Control is said to consist of the exercise of effective influence on events in the environment. Sutton and Kahn propose that individual's perceptions of events in their environment may be based on their underlying perceptions of the predictability, understandability, and controllability of those events.

It is apparent that the dimensions of prediction and understanding are informational in nature. Prediction provides information about the

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what and when of stimulus events, while understanding addresses the questions of how and why. Whether they represent two distinct dimensions as Sutton and Kahn suggest, or are subaspects of single dimension, as Ryan's model implies, is a question for empirical investigation.

Perceptions of the work environment in general have been collected in previous studies (Daft & MacIntosh, 1981; Tetrick, Colquitt, Staudenmier, Callton & Kiriacopoulou, 1984; Walsh, Taber & Beehr, 1980) which examined the underlying structure of that environment. An alternative approach would be to examine the perceptions of a particular event or episode within the work environment which is likely to occur in a large number of organizations and work settings. The performance appraisal interview is one such event.

In organizations which use some type of formalized goal setting system in conjunction with their appraisal program (e.g. Management by Objectives) the event of appraisal begins long before the appraisal interview itself, with the setting of goals. Hence we use the term performance appraisal episode here to indicate the possible extended nature of perceptions of the appraisal situation. The purpose of this study is to test the relative fit of the two previously discussed models when applied to perceptions of the appraisal episode.

A review of the literature on perceptions of appraisal interviews conducted subsequent to the use of goal setting procedures indicates that several aspects of the appraisal episode are salient to the appraisee (Burke, Weitzel & Weir, 1978; Greller, 1975; Ilgen, Peterson, Martin & Boeschen, 1981; Kay, Meyer & French: 1965; Landy, Barnes & Murphy, 1978).

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Among the characteristics of the appraisal episode which seemed most important to appraisees were the setting of goals, the degree of consensus concerning goals which were set, goal clarity, performance clarity (i.e. adequate feedback) and two aspects of participation in the appraisal interview - ownership of the appraisal interview and impact on the appraisal interview (Greller, 1978). Using these characteristics, it is possible to test which of the models - Ryan's tow-dimensional model or Sutton and Kahn's three-dimensional model, best accounts for the covariance among perceptions of the performance appraisal episode.

Insert Figure 1 about here

Model I reflects the three-dimensional model based on Sutton and Kahn (1983). The prediction component is reflected by the perceptions of goal setting and consensus concerning the goals which are set. It is hypothesized that the predictability of the appraisal situation will be enhanced to the degree that the appraisee knows what goal expectations will be taken into account when she or he is evaluated. The understanding component is reflected by goal clarity and performance clarity. It has been suggested that the joint use of unambiguous goals and adequate performance feedback facilitates understanding of precisely what is expected of the appraisee and how it may relate to subsequent appraisals of their performance (Beehr & Love, 1983; Ilgen, Fischer & Taylor, 1979). The control component is reflected by the two aspects of participation, impact on the appraisal interview and ownership of the goal setting and appraisal process.

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Several studies have proposed that participation is a process of relative influence or control (Halim, 1983; Lischeron & Wall, 1975; Miller, 1980; Mulder, 1971). Therefore, it is hypothesized that control will be indicated by these two aspects of participation.

In Model II, controlling events are again manifested by the two aspects of participation. The informational events are hypothesized to be manifested by the four remaining variables.

Method

Sample

Data were obtained from 213 individuals employed by a large electronic information processing organization which had recently installed a goal setting and appraisal program (in place for one year at the time of questionnaire administration). The sample of respondents was restricted to include only exempt employees working in the United States, as other employees in the company had not been exposed to the goal setting and appraisal program. Individuals holding a wide variety of jobs were represented in the sample, including persons in administrative, finance, sales, manufacturing, and engineering positions. Of these respondents, only those with complete responses to the variables of interest were included in all subsequent analyses (N = 206).

Instrument

The questionnaire included 15 items representing the six variables shown in Figure 1. The items were similar to those found in existing scales used to measure managerial reaction to goal-setting and appraisal programs (Carrol & Tosi, 1970; Greller, 1978; Hollman, 1976; Moore & Scott, 1983). All items were measured on Likert type scales. The number

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of items and indicators of internal consistency are shown in Table 1. Since coefficient alpha can underestimate internal consistency when the number of items used in a scale is small, inter-item correlations are shown as indicators of internal consistency for those scales consisting of only two items (Lord & Novick, 1968).

Insert Table 1 about here

Goal setting was measured by two items describing the extent to which goals were established for and/or by the respondent. Consensus concerning goals was measured by three items assessing the degree to which respondents and their managers discuss, negotiate and come to a mutual agreement about goals which are set. The goal clarity scale consists of two items which describe the degree to which the goals which were set are clear and unambiguous. Performance clarity was measured by three items involving the person's perception of the quality and quantity of feedback they received outside of the performance appraisal interview. Ownership of the goal setting and appraisal process was measured by two items which addressed the degree to which respondents felt their participation in the goal setting and appraisal process was welcome and the degree to which the appraisal covered the topics which they felt required attention. Impact on the appraisal interview was measured by three items which indicated that the respondents felt they influenced the content and outcome of the performance appraisal interview.

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Results

The zero-order correlation coefficients of the six variables are presented in Table 1. This correlation matrix was submitted to confirmatory factor analysis using LISREL VI (Joreskog & Sorbom, 1981).

The three factor model of prediction, understanding and control (Model I) was confirmed based on the chi-square statistic (X^2 = 7.15 with 6 degrees of freedom, p = 0.307). The results indicated that this model was superior, in terms of fit with the data, to the two-factor model of information and control (Model II) as judged by the chi-square statistic and by other indices of fit as well (X^2 = 70.41 with 8 degrees of freedom, p = 0.000; goodnes of fit index = .881; root mean square residual = .075). The maximum likelihood factor coefficients and goodness of fit statistics for Models I and II are shown in Table 2 and Table 3, respectively.

Insert Tables 2 and 3 about here

An inspection of the modification indices for Model II suggested that a revision to Model II in which performance clarity was not restricted to load only on information would improve the fit. This revised model was tested and was not found to significantly improve the fit of Model II (X^2 = 40.14 with 7 degrees of freedom, p = 0.000; goodness of fit index = 0.942: root mean square residual = 0.072).

The correlations among the factors in both models were significantly different from zero. The correlations between the latent variables in Model I are given in Table 2. The correlation between the factors of information and control in Model II was 0.80.

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Discussion

The purpose of this study was to compare Ryan's (1982) model of perceived environmental events with Sutton and Kahn's model of prediction, understanding and control (1983) in the context of the performance appraisal episode. The results suggest that Sutton and Kahn's model better explains the covariance among the aspects of the performance appraisal episode included in this study.

These results may only be considered tentative for several reasons. First, it was not possible to include other aspects of the performance appraisal episode which may be important to consider. If additional variables were included, the fit of the two models could be better assessed. Second, the error terms were assumed to be uncorrelated for the purposes of analysis. This assumption may not be fully warranted as all measures were obtained by a single method. In addition, because the goal-setting and appraisal program is relatively new to the organization sampled, the responses of this sample may not be generalizable to perceptions of the appraisal episode in other organizations where more established programs may be in use.

In spite of the limitations of this study, however, it appears that the dimensions of prediction, understanding and control may be the major dimensions by which individuals interpret and respond to this particular episode in their work environment. Prediction in the appraisal episode was indicated by the degree to which goals were set and consensus concerning the goals was reached. Understanding was indicated by the amount of perceived goal clarity and performance clarity achieved through adequate feedback. Control was indicated by two aspects of participation in the

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appraisal interview defined by Greller (1978), ownership of the goal setting and appraisal process and impact on the appraisal interview.

The models tested here both suggest that the underlying factors determine perceptions of the related observed bariables (James, Muliak, & Brett, 1982). The possibility exists that the reverse causal ordering or perhaps a nonrecursive model more accurately represents the way perceptions of the appraisal episode are formed. For example, the degree to which goals are set and agreed upon may influence perceptions of ability to predict what will subsequently be appraised. Similarly, the amount of clarity present may influence percpetions of understandability, and perceptions of participation in the goal setting and appraisal process may influence the amount of control a person feels that they have over the appraisal episode. With independent measures of the factors of prediction, understanding and control, it would be possible to test these alternative models.

Another question of interest concerns the utility of these dimensions for predicting reactions to performance appraisal programs. One could argue that persons with high perceptions of predictability, understandability, and controllability of the performance appraisal episode would feel less threatened by the prospect of appraisal and hence have more favorable perceptions of the appraisal system as a whole (Kay, Meyer & French, 1965; Greller, 1978).

In conclusion, this study has added support to the notion that prediction, understanding and control are three psychological dimensions that individuals use to make sense of events in their work environment. Future studies should attempt to provide a clearer picture of the

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direction of causality concerning these dimensions. The predictive value of these psychological dimensions for outcomes such as the acceptance of an appraisal program and perceptions of program effectiveness should also be addressed in future research.

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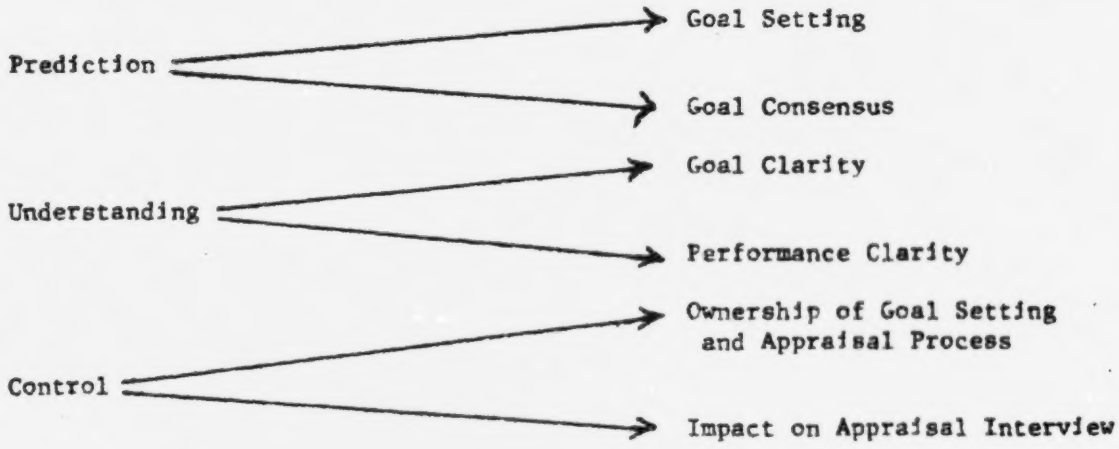
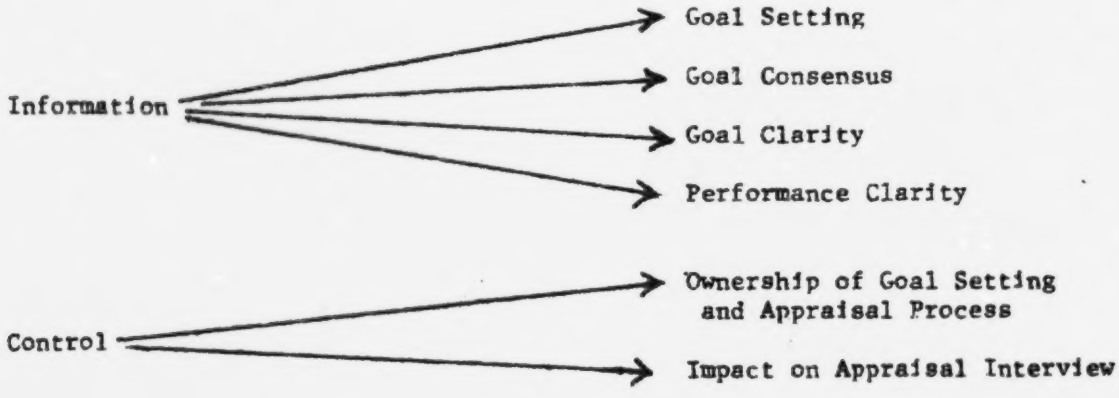
Figure 1.

Models of Perceived
Appraisal Episodes



Model I



Model II

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Table 1.

Scale Reliabilities and Correlations Among Scales

Variable	Reliability	Number of Items	1	2	3	4	5	6
1. Goal Setting	.31[a]	2	1.00					
2. Consensus	.81[b]	3	.76	1.00				
3. Goal Clarity	.65[a]	2	.37	.44	1.00			
4. Performance Clarity	.83[b]	3	.41	.48	.52	1.00		
5. Ownership of Goal Setting and Appraisal Process	.54[a]	2	.53	.61	.54	.60	1.00	
6. Impact on Appraisal Interview	.87[b]	3	.51	.56	.42	.58	.79	1.00

[a]Inter-Item Correlation

[b]Cronbach's alpha

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Table 2,

Results of confirmatory factor analysis for Model I.

	Prediction	Understanding	Control
1. Goal Setting	.82		
2. Consensus	.93		
3. Goal Clarity		.67	
4. Performance Clarity		.77	
5. Ownership of Goal Setting and Appraisal Process			.93
6. Impact on Appraisal Interview			.84
Correlations Among Latent Variables:			
1. Prediction	1.00		
2. Understanding	.67	1.00	
3. Control	.70	.84	1.00

X^2 = 7.15 with 6 df (p = 0.307)

Goodness of fit index = 0.989

Root mean square residual = 0.016

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Table 3.

Results of confirmatory factor analysis for Model II.

	Information	Control
1. Goal Setting	.80	
2. Consensus	.86	
3. Goal Clarity	.57	
4. Performance Clarity	.63	
5. Ownership of Goal Setting and Appraisal Process		.93
6. Impact on Appraisal Interview		.85
Correlations Among Latent Variables:		
1. Information	1.00	
2. Control	.80	1.00

X^2 = 70.41 with 8 df (p = 0.000)

Goodness of fit index = 0.881

Root mean square residual = 0.075

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